

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/781,795 02/12/01 RUPPERT

M 60,130-1004

EXAMINER

KERRIE A. LABA  
CARLSON, GASKEY & OLDS, P.C.  
400 W. MAPLE RD., STE. 350  
BIRMINGHAM MI 48009

PM82/1023

VANDAMAN, F

ART UNIT

PAPER NUMBER

3611

DATE MAILED:

10/23/01

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks**

## Office Action Summary

Application No. 09/781,795	Applicant(s) Ruppert, Jr., et al.
Examiner Vanaman	Art Unit 3611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1)  Responsive to communication(s) filed on Aug 16, 2001

2a)  This action is FINAL. 2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

4)  Claim(s) 23-56 is/are pending in the application.

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 23-36, 38, and 40-56 is/are rejected.

7)  Claim(s) 37 and 39 is/are objected to.

8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on Feb 12, 2001 is/are objected to by the Examiner.

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved.

12)  The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119

13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)  All b)  Some\* c)  None of:

1.  Certified copies of the priority documents have been received.

2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

### Attachment(s)

15)  Notice of References Cited (PTO-892)

18)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

16)  Notice of Draftsperson's Patent Drawing Review (PTO-948)

19)  Notice of Informal Patent Application (PTO-152)

17)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_

20)  Other: \_\_\_\_\_

Art Unit: 3611

### **Status of Application**

1. Applicant's amendment, filed 8/16/01 has been entered in the application. Claims 23-56 are pending, claims 51-56 having been added.

### **Drawings**

2. The drawings remain objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the first and second electric motors mounted at least partially *within* a wheel hub periphery must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

### **Specification - New Matter**

3. The amendment filed 8/16/01 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the wheel hubs having a common periphery wherein the motors are mounted within the periphery. Applicant has suggested that this feature is shown in figures 2A and 2B, however these figures show the motors mounted substantially spaced from the peripheries of either wheel hub, and *not* within the peripheries. In general, the term "within" is used to denote enclosure and/or containment, e.g., "to the inside of". Defining a periphery common to both wheels specifies, then, a construction including both peripheries-- however the motors are still not mounted within such peripheries as they are spaced substantially from the peripheries.

Applicant is required to cancel the new matter in the reply to this Office action.

Art Unit: 3611

### **Claim Rejections - 35 USC § 112**

4. Claims 47 and 56 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 47 and 56 refer to first and second electric motors mounted at least partially *within* a common outer wheel hub periphery, however the specification *as originally filed*, provides no support for such a limitation.
5. Claim 47 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 47, lines 18 and 19, the recitation of a common outer periphery associated with two separate units is confusing. Note additionally claim 47 at lines 6-8.

### **Double Patenting**

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 23-36, 38, 40-46 and 48-55 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 6,276,474. Although the conflicting claims are not identical, they are not patentably distinct from each other because it is not considered to be beyond the skill of the ordinary practitioner to

Art Unit: 3611

provide a planetary gear set incorporated into a wheel hub (e.g., claim 24), make a pair of abutting elements integral (e.g., claim 30), or orient a pair of longitudinal elements driving the same transverse element in a coaxial manner (claim 46).

Applicant's comments concerning the status of the previous application are noted. This (*previous*) application has now issued as a U.S. Patent, as noted above.

#### **Claim Rejections - 35 USC § 102**

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 41 and 46 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Travis (cited by applicant). Travis teaches a drive unit assembly (10) comprising a first driving axle shaft (18), a second driving axle shaft (20), the first and second driving axle shafts being oriented along the same turning axis, first and second respective wheels and wheel hubs, the respective wheel hubs being driven by respective bevel-ring gears (e.g., 37) which are engaged by bevel-pinion gears (38) in gearboxes (12) which are in turn mounted to motors (40) which are oriented at non parallel angles to the turning axis of the driving axle shafts, including at least two motors driving each wheel hub, wherein each of the bevel-ring gears may be engaged by each of two motors and each of the two motors driving a bevel-ring gear are oriented so as to be aligned along a common rotational axis.

#### **Claim Rejections - 35 USC § 103**

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Art Unit: 3611

11. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Austin in view of Quartullo. Austin teaches a passenger vehicle having a plurality of seats located on higher floor portions and a centrally located aisle located on a lower floor portion, wherein an engine, for driving the vehicle wheels is located higher than the aisle floor. The reference of Austin fails to teach the wheels as being driven by electric motors mounted at a right angle to the wheel rotational axes and driving the wheels through a gearing system.

Quartullo teaches a vehicle having a body and a pair of wheels, each wheel driven by a motor through a 90 degree angle, the driving force being transmitted through a worm-drive gear set, and wheel axle to wheel hubs, wherein a floor of a vehicle has a lower extent in a central location, and an upper extent, wherein the motors are mounted vertically higher than the central floor portion. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the wheel driving engine of the vehicle of Austin with the individual electric drives taught by Quartullo for the purpose of allowing the driven wheels to be independently suspended, as suggested by Quartullo.

#### **Claims Not Rejected on the Prior Art**

12. Claims 47 and 56 are not rejected as being anticipated by or unpatentable over the prior art, nor are they rejected for Double Patenting issues, but the claims are rejected under 35 USC §112, first paragraph, and would not be in condition for allowance until the resolution of the 35 USC §112 first paragraph issues.

13. Claims 23-36, 38, 40, 42-45 and 49-55 cannot be allowed until the resolution of the Double Patenting issues set forth above in paragraphs 6 and 7 above.

14. Claims 37 and 39 are objected to, as they are not currently rejected under the doctrine of Double Patenting, but are dependent from claims which are so rejected.

Art Unit: 3611

### Response to Arguments

15. Applicant's comments have been carefully considered.

As regards claim 41, this claim was not rejected in the previous office action through an error on the part of the examiner. An appropriate rejection has been set forth in the instant office action. The examiner apologizes for any confusion which may have arisen from this error.

Applicant has argued that the combination of Travis and Eichinger would result in the destruction of a portion of the base reference. In this case, the examiner agrees, and the rejection has been withdrawn for the reasons as specifically set forth by applicant in the remarks.

Applicant's comments are also noted with respect to the Kawamoto reference. While the rejection based on Kawamoto et al. has been withdrawn in view of the withdrawal of the base rejection involving Travis and Eichinger, it is important to note that the withdrawal of the Kawamoto reference is *not* in view of applicant's comments directed to the Kawamoto reference, as they are not at all correct. Note that the one section of Kawamoto et al.'s text which has been cited by applicant has been applied piece-meal, in that the stepped bore 27 which holds element 4 against rotation is formed in element 21, which is the output shaft. The stepped bore simply insures that the two output elements do not slip. A complete reading of this text, or at least a reading which continues to col. 4, lines 32-39 would verify that the element 4 is most certainly used to drive wheels. If applicant desires to maintain that element 4 is not used to drive wheels, then applicant is hereby invited to explain what element does drive the wheels.

As regards the combination of the references of Austin and Quartullo, Applicant has argued that the engine in Austin is not adjacent the wheels, however Austin shows nothing located between the engine and the wheels, thus one precedes or follows the other, and can be considered adjacent to the breadth claimed. As regards the replacement of the engine with motors, it would not be considered obvious to position the motors in a space other than that already taught by Austin to be reserved for the engine. Applicant's comments concerning the motors and wheels being separated by a distance corresponding to two rows of seats are not clear. A

Art Unit: 3611

mounting of the motors in a reserved engine space, wherein the mounting may require an additional drive shaft length is not a modification deemed beyond the skill of the ordinary practitioner, particularly in that the location of Austin's engine would require such a drive shaft length as it stands.

### **Conclusion**

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to F. Vanaman whose telephone number is (703) 308-0424. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-1113.

Any response to this action should be mailed to:

Assistant Commissioner for Patents

Washington, DC 20231

or faxed to :

(703) 305-3597 or 305-7687 (for formal communications intended for entry;  
informal or draft communications may be faxed to the same number but should be  
clearly labeled "UNOFFICIAL" or "DRAFT")

**F. VANAMAN**  
**Primary Examiner**  
**Art Unit 3611**

F. Vanaman  
October 18, 2001



10/18/01